

*Wm. A. Guy*  
*for the Statistical Society*

*On the Duration of Life among the English Gentry, with additional observations on the Duration of Life among the Aristocracy.* By WILLIAM A. GUY, M.B., Cantab., Fellow of the Royal College of Physicians, Professor of Forensic Medicine, King's College, Physician to King's College Hospital, Honorary Secretary to the Statistical Society, &c.

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In a recent number of the journal of the Statistical Society\*, I examined the duration of life among the male members of the families of the Peerage and Baronetage of the United Kingdom; and I now proceed to extend that inquiry to the male members of the families of the English Gentry, and to the females of the Upper Classes. In order, also, to present a more complete view of the duration of life among the higher classes, I shall extend the comparison so as to embrace the members of Royal Houses. The materials for the proposed comparison have been obtained from two distinct sources—the county histories of Northampton, Cheshire, Berkshire, and Surrey, and the history of Leeds†, on the one hand, and the *Annual Register*, on the other. The facts obtained from the county histories consist of the ages at death of all males and females dying aged 21 and upwards, arranged in three classes:—1. The Male Members of the Families of the Gentry, 2. The Females of the Upper Classes, including the Peerage and Baronetage as well as the Gentry, and 3. The Members of the several Professions. The ages at death are taken partly from the pedigrees of the county families and partly from mural tablets.

The comparison which I am about to institute between the results obtained from these sources and from the Peerage and Baronetage is open to several objections, of which the most obvious are the limited number of county and civic histories employed, the admission into that number of one of our large manufacturing towns, and the comparatively ancient date of the histories of Berkshire and Surrey. A more careful and more extensive choice of county histories might have furnished unexceptionable materials for the comparison; but as a still more satisfactory and accessible record of facts presents itself in the shape of the obituaries contained in the successive numbers of the *Annual Register*, I have deemed it a better economy of time, to present first the results obtained from the county and civic histories, with all the objections attaching to them, and then a separate and distinct comparison drawn from the facts gleaned from the *Annual Register*.

#### *County Histories.*

The following table presents the numbers dying at each age of the three classes—gentry (males); females of the upper classes; and professional persons‡. The number of the first class is 2455, of the second 1872, and of the third 699.

\* March, 1845.

† Baker's Northampton; Ormerod's Cheshire; Ashmole's Berkshire; Aubrey's Surrey; and Whitaker's Leeds.

‡ The professional persons consist of 565 clergy, 57 lawyers, (chiefly barristers,) 30 medical men, (chiefly physicians,) 33 officers of the army, 6 of the navy, and 8

TABLE I.

Age	Gentry.	Females.	Professions.	Age.	Gentry.	Females.	Professions.
21	20	23	....	64	51	21	22
22	15	28	....	65	52	26	22
23	39	14	....	66	60	30	25
24	27	34	....	67	52	33	22
25	40	43	....	68	44	37	23
26	24	22	....	69	50	38	16
27	22	25	....	70	64	54	17
28	22	24	....	71	62	32	13
29	21	26	....	72	62	52	16
30	32	15	....	73	48	38	23
31	18	22	2	74	44	31	15
32	30	22	2	75	44	30	16
33	20	34	5	76	44	33	20
34	28	17	2	77	44	46	14
35	35	28	8	78	35	35	14
36	32	25	8	79	44	30	8
37	28	39	3	80	31	39	16
38	26	26	1	81	24	17	12
39	26	23	8	82	25	37	12
40	39	29	8	83	23	22	9
41	22	17	5	84	26	21	9
42	22	22	7	85	12	16	4
43	17	16	9	86	17	33	1
44	32	14	13	87	13	11	4
45	34	19	8	88	15	12	7
46	23	22	7	89	10	11	4
47	34	22	4	90	7	21	7
48	28	25	10	91	4	3	1
49	41	18	12	92	7	6	3
50	33	19	11	93	2	3	0
51	25	16	5	94	1	2	0
52	48	25	5	95	4	1	2
53	37	16	13	96	3	6	0
54	53	19	13	97	2	0	0
55	35	22	19	98	0	2	1
56	49	21	13	99	2	0	1
57	50	23	16	100	3	0	0
58	50	18	22	101	0	0	....
59	39	25	13	102	1	0	....
60	42	40	17				
61	46	29	12	106	....	....	1
62	47	29	11				
63	72	47	26	112	....	....	1

In the following tables the deaths among the gentry, females, and professions, are given for periods of five and ten years respectively, and a column is added presenting the per centage proportions at each quinquennial and decennial period. The per centage proportions are omitted in the case of the members of professions, in consequence of the enumeration beginning among that class at a later age.

members of other professions. In consequence of the great preponderance of the clergy, the results differ little from those which could have been obtained if members of that profession had been taken separately. The mixed results are merely used as a rude standard of comparison.



TABLE II.

Age.	Number of Deaths.			Per Cent.	
	Gentry.	Females.	Professions.	Gentry.	Females.
21 — 25	141	142	....	5·74	7·58
26 — 30	121	112	....	4·93	5·98
31 — 35	131	123	19	5·34	6·57
36 — 40	151	142	28	6·15	7·58
41 — 45	127	88	42	5·17	4·70
46 — 50	159	106	44	6·48	5·66
51 — 55	198	98	55	8·03	5·23
56 — 60	230	127	81	9·37	6·78
61 — 65	268	152	93	10·92	8·12
66 — 70	270	192	103	11·00	10·26
71 — 75	260	183	83	10·59	9·78
76 — 80	198	183	72	8·07	9·78
81 — 85	110	113	46	4·48	6·04
86 — 90	62	88	23	2·53	4·70
91 — 95	18	15	6	0·73	0·80
96 — 100	11	8	2	0·45	0·43
and upwards					

TABLE III.

Age.	Number of Deaths.			Per Cent.	
	Gentry.	Females.	Professions.	Gentry.	Females.
21 — 30	262	254	....	10·67	13·56
31 — 40	282	265	47	11·49	14·15
41 — 50	286	194	86	11·65	10·36
51 — 60	428	225	136	17·40	12·01
61 — 70	538	344	196	21·92	18·38
71 — 80	458	366	155	18·66	19·56
81 — 90	172	201	69	7·01	10·74
91 — 100	29	23	8	1·18	1·23
and upwards					

I am indebted to Mr. Neison's kindness for the following life table, constructed from the foregoing data. (Table IV.)

On carefully comparing the columns of this Life Table it appears, that during the three years 20, 21, and 22, the expectation of life among the gentry is somewhat higher than among the females of the upper classes, but that from 23 to 79, both inclusive, the reverse obtains, while after 79, till the end of life, the expectation among the gentry again exceeds that of females. The difference in favour of the female, at the age of 50, somewhat exceeds two-and-a-half years; on the other hand, the expectation for males at 90 years of age exceeds that of females by more than one year. On comparing the gentry with professional men, the expectation will be found to be in favour of the latter class up to the 62nd year, after which age it gradually becomes more favourable to the gentry, and continues so to the end of life.

TABLE IV.

*Expectation of Life in the Male Members of the families of the English Gentry, in the Females of the Upper Classes, and in Professional Men.*

Age.	Gentry.	Females.	Professions.	Age.	Gentry.	Females.	Professions.
18	38·4760	....	....	62	11·8169	13·4157	11·8257
19	37·9029	....	....	63	11·3563	12·8553	11·3511
20	37·3281	36·9833	....	64	10·9102	12·3097	10·8929
21	36·7516	36·5345	....	65	10·4771	11·7812	10·4559
22	36·1734	36·0872	....	66	10·0558	11·2730	10·0392
23	35·5908	35·6414	....	67	9·6452	10·7885	9·6458
24	35·0016	35·1879	....	68	9·2463	10·3241	9·2723
25	34·4031	34·7213	....	69	8·8606	9·8761	8·9146
26	33·7928	34·2365	....	70	8·4901	9·4407	8·5678
27	33·1680	33·7279	....	71	8·1371	9·0136	8·2258
28	32·5342	33·2015	....	72	7·8045	8·5905	7·8805
29	31·8890	32·6630	....	73	7·4918	8·1739	7·5328
30	31·2412	32·1186	33·9479	74	7·1983	7·7667	7·1856
31	30·5923	31·5746	33·1335	75	6·9235	7·3730	6·8428
32	29·9456	31·0366	32·3156	76	6·6665	6·9978	6·5097
33	29·3022	30·5100	31·4942	77	6·4252	6·6476	6·1936
34	28·6630	29·9921	30·6745	78	6·1998	6·3190	5·8946
35	28·0289	29·4861	29·8602	79	5·9897	6·0077	5·6120
36	27·4012	28·9945	29·0542	80	5·7917	5·7070	5·3449
37	26·7807	28·5181	28·2597	81	5·6000	5·4064	5·0902
38	26·1626	28·0467	27·4779	82	5·4041	5·0893	4·8423
39	25·5421	27·5683	26·7098	83	5·2038	4·7578	4·6039
40	24·9143	27·0708	25·9565	84	5·0003	4·4162	4·3750
41	24·2743	26·5415	25·2193	85	4·8464	4·0716	4·1546
42	23·6179	25·9681	24·4991	86	4·5994	3·7369	3·9439
43	22·9503	25·3607	23·7923	87	4·4209	3·4341	3·7441
44	22·2768	24·7297	23·0942	88	4·2644	3·1676	3·5551
45	21·6026	24·0862	22·3998	89	4·1320	2·9433	3·3741
46	20·9333	23·4415	21·7059	90	4·0231	2·7654	3·2027
47	20·2737	22·8059	21·0095	91	3·9244	2·6283	3·0294
48	19·6243	22·1756	20·3130	92	3·8055	2·4780	2·8247
49	18·9856	21·5469	19·6190	93	3·6486	2·5412	2·5890
50	18·3584	20·9151	18·9298	94	3·4358	2·3592	2·3241
51	17·7884	20·2764	18·2460	95	3·1571	2·0879	2·0256
52	17·1875	19·6271	17·5711	96	2·8333	1·7411	1·7037
53	16·5984	18·9717	16·9074	97	2·5139	1·4444	1·4117
54	16·0212	18·3154	16·2587	98	2·2019	1·1346	1·1315
55	15·4545	17·6634	15·6285	99	1·9035	·8200	·8333
56	14·8982	17·0199	15·0205	100	1·6333	·5000	·5000
57	14·3524	16·3893	14·4385	101	1·3888	....	....
58	13·8177	15·7716	13·8796	102	1·1666	....	....
59	13·2953	15·1668	13·3409	103	·9545	....	....
60	12·7866	14·5718	12·8201	104	·7500	....	....
61	12·2932	13·9885	12·3158	105	·5000	....	....

I now proceed to compare the duration of life among the gentry and professional persons with that of the peerage and baronetage. It will be sufficient to make this comparison for every quinquennial period, as is done in the following table. The duration of life among females of the higher classes is also given.



TABLE V.

Age.	Peerage and Baronetage	Gentry.	Profes- sions.	Females.	Age.	Peerage and Baronetage	Gentry.	Profes- sions.	Females.
20	38·5	37·3	....	37·0	65	10·2	10·5	10·5	11·8
25	34·6	34·4	....	34·7	70	8·2	8·5	8·6	9·4
30	30·9	31·2	33·9	32·1	75	6·5	6·9	6·8	7·4
35	27·4	28·0	29·9	29·5	80	5·1	5·8	5·3	5·7
40	24·5	24·9	26·0	27·1	85	4·0	4·8	4·2	4·1
45	20·9	21·6	22·4	24·1	90	3·4	4·0	3·2	2·8
50	17·9	18·4	18·9	20·9	95	2·4	3·2	2·0	2·1
55	15·2	15·5	15·6	17·7	100	1·2	1·6	0·5	0·5
60	12·6	12·8	12·8	14·6					

On a careful comparison of the several columns of this table it will appear, that with the exception of the ages of 20 and 25, the gentry enjoy a better expectation of life than the aristocracy; and that the same is true of professional persons up to 85 years of age, after which time the aristocracy enjoy a slight advantage. The females of the higher classes, at 20 years of age, have a lower expectation of life than either the aristocracy or gentry, but from 25 to 75 years of age inclusive, the expectation for females is more favourable than that for either of the other classes. At 90 years of age, again, the balance turns in favour of the male members of the aristocracy, and at 80 in favour of the gentry. The expectation for professional men, as compared with that for females is higher at 30 and 35 years, and after 80, but in the intermediate period it is in favour of females. From 40 to 70 years of age inclusive, the four classes stand, in respect of the expectation of life, beginning with that which enjoys the most favourable expectation, in the following order:—females, professional men, gentry, aristocracy. If the comparison is limited to males, and from 30 to 70 years inclusive, they will stand in the following order:—professional men, gentry, aristocracy; from 75 to 85 inclusive;—gentry, professions, aristocracy; and from 90 to 100 inclusive:—gentry, aristocracy, professions. If the clergy, who form the large majority of the class, designated “professions,” had been taken separately, there is no doubt that they would have presented a still more favourable expectation, for on comparing the clergy alone with the remainder, I find that while at the period, from 30 to 40, the former lose 5 per cent. by death, the latter lose no less than 13 per cent., an excess which must tend greatly to lower the expectation of life for the entire class.

From the foregoing considerations it is rendered in the highest degree probable that, for the greater part of life, the gentry are more healthy than the aristocracy, and professional persons (chiefly clergymen) more healthy than either of the others. It will presently appear how far this conclusion is borne out by the result of the facts gleaned from the *Annual Register*.

Before, however, I proceed to this new order of facts, it may be well to apply the new materials collected from the county histories, to the solution of a question partly discussed in the former essay—Has the duration of life among the higher classes varied at different periods, and if so, has it continued to improve, as we have reason to believe has been the case with the bulk of the community?

The following table will contribute somewhat towards the solution of this question, but the general results to which it leads must be received with all the reserve which should always be exercised when we deal with small numbers of facts. They are *statistical probabilities* of a low order, which may be usefully placed on record, awaiting further confirmation, or the more unwelcome fate of theories based on too slender a foundation.

TABLE VI.

Date of Birth.	English Kings.		Peerage and Baronetage.		Gentry.		Professions.		Females.		Total.	
	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.
1200-1300	2	66·50	7	64·14	7	62·29	..	..	1	56	17	63·18
1300-1400	3	48·33	9	45·44	7	46·57	..	..	2	47·5	21	46·42
1400-1500	3	50·00	23	69·11	21	60·29	1	58	5	47·0	53	58·24
1500-1550	1	59·00	52	71·27	100	68·15	30	66·90	40	65·35	222	68·21
1550-1600			100	68·25	244	64·25	84	69·06	152	57·85	580	63·96
1600-1650	4	66·75	192	63·95	707	59·65	159	64·17	424	60·13	1482	60·83
1650-1700			346	62·40	625	52·75	182	60·57	613	56·29	1766	56·67
1700-1745	3*	74·66	812	64·13	479	58·58	185	62·67	463	68·81	1942	63·75

\* 1700 to 1763 inclusive.

This table is extremely curious, and deserving of comment. The last column, which presents the total of the five classes, exhibits an average duration of life, in persons born during the 13th century, of 63 years; this average falls during the 14th century so low as 46½ years, rises during the 15th to 58¼, and during the first half of the 16th century to 68½; from this, its highest point, it gradually falls, in successive half centuries, till, in the latter half of the 17th century, it reaches its minimum, 57 years, to recover itself again during the first half of the 18th century, when it rises to 63¾ years. With this general result, that of the several classes tallies as closely as could be reasonably anticipated. In the first three columns, and in the general average, there is a minimum in males born during the 14th century, and a decrease as compared with those born in the preceding and succeeding century; in the case of English monarchs there is an unbroken increase through the several successive periods; the peerage and baronetage, and the gentry, present a maximum in those born during the first half of the 16th century, and professional persons in those born during the last half of the same century; in females also the average is high during the first half of the 16th century, and, in common with the other classes, decreases till the end of the 17th century, to increase again in persons born during the first 45 years of the 18th century. In the case of females the maximum age is attained at this period. All the columns agree in presenting a marked increase in the average duration of life of those born during the 18th century, as compared with those born in the last half of the 17th century. In males the maximum occurs in the first or last half of the 16th century, in females in the beginning of the 18th century.

Though it is not contended that the facts at the earlier periods are sufficiently numerous, yet some weight ought to be given to the coincidence of the several data in the same general result. Should the figures in this table receive confirmation from future inquiries, the



result expressed in general terms would be—an extraordinarily low duration of life in persons born during the 14th century, a maximum attained during the 16th century, a progressive decrease in the value of life till the end of the 17th century, and a marked improvement in those born during the 18th century. It will presently appear that this improvement is still in progress.

In pointing out these fluctuations, in the case of the peerage and baronetage, I suggested that the progressive diminution in the value of life might be due to social habits gradually deteriorating from the period of the greatest average, falling to a minimum as intemperance and self-indulgence reached their climax, and then again rising with improved habits of living: and to this view of the case I still incline. Whether the very low duration of life in persons born during the 14th century is to be ascribed to the frightful pestilence which ravaged this country about the middle of that century, and to the long succession of similar visitations which followed close upon it and upon each other, is a question which I am unable to answer. I proceed, therefore, to the second division of my subject, the duration of life among the higher classes, as determined by facts gleaned from the *Annual Register*.

#### *Annual Register.*

From the obituaries of the *Annual Register*, from the date of its first publication in the year 1758 to the year 1843 inclusive, I have carefully extracted the ages at death of all persons dying aged 21 years and upwards, and have arranged them according to sex, rank, and profession. The comparison which it is proposed to institute in the present Essay will embrace the members of royal houses, both male and female, the male members of the families of the peerage and baronetage, and of the gentry, and females belonging to the higher classes; and as the period embraced by the obituaries is the same in each case, it is believed that the comparisons will be as accurate as the nature of the case allows. The results obtained in the case of professional men are reserved for a future communication.

It may be well to add, that in the case both of the county histories and of the *Annual Register*, the deaths by violence have been omitted, and that every death from natural causes taking place above 21 years of age has been included in the abstracts. It may be objected to facts derived from this source, that the results may be influenced by selection; and that while the deaths of all members of royal houses and of the aristocracy, at whatever age occurring, would be chronicled, the deaths occurring among the gentry are only recorded in the case of men who have attained to positions of eminence. A reference to the obituaries themselves will show that there is no good ground for this objection. There is such a proportion of young men, and of men without title or distinction, as might be expected in an obituary aiming at being a faithful and impartial chronicle of deaths taking place in the higher ranks of society. Moreover, the large number of deaths of tradesmen and of persons whose decease could have no public interest, shows that such was the object of the compiler of the obituaries. In using the tables as means of comparison with the duration of life in the humbler orders, it should be borne in mind, that if any omissions have been made, they are most likely to have been of the younger members; so that if there is any error or exaggeration, it consists in

presenting the average age at death, and the expectation at different ages, in too favourable a light: so that if, on comparing the higher classes with the rest of the community, or with the lower orders, the result should be to the disadvantage of the former, they must be considered as still shorter-lived than the figures would represent them.

*Duration of Life among the Higher Classes, as deduced from the Obituaries of the Annual Register, 1758 to 1843.*

TABLE VII.

Age.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.	Age.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.
	Males.	Females					Males.	Females			
21	1	0	5	5	24	61	2	0	14	29	19
22	1	0	6	15	16	62	0	1	21	32	23
23	0	0	7	10	14	63	1	3	26	39	25
24	1	1	2	8	17	64	1	0	22	31	13
25	0	0	5	16	16	65	1	0	29	40	38
26	0	0	3	9	11	66	4	1	26	29	28
27	2	0	6	11	16	67	3	0	18	39	23
28	0	1	7	13	18	68	3	4	30	44	27
29	0	1	6	6	12	69	2	4	19	40	28
30	0	0	13	12	6	70	1	1	47	63	66
31	0	0	5	5	13	71	2	1	35	49	41
32	0	0	4	16	19	72	5	1	39	45	46
33	1	0	7	8	15	73	2	3	35	45	44
34	0	2	2	5	10	74	1	1	34	54	36
35	0	2	10	10	13	75	1	2	42	60	63
36	1	1	7	9	15	76	6	4	35	56	47
37	1	0	9	6	22	77	2	0	34	47	51
38	0	0	6	12	18	78	5	0	31	40	45
39	1	1	7	3	11	79	0	1	15	24	37
40	0	1	8	9	10	80	2	2	31	80	64
41	1	1	8	12	13	81	1	1	29	32	54
42	2	0	13	13	12	82	2	1	32	45	55
43	2	0	12	17	8	83	2	1	25	40	50
44	1	0	7	9	15	84	0	0	21	51	48
45	2	2	12	10	17	85	1	0	31	46	48
46	2	0	14	3	16	86	0	0	20	32	39
47	0	1	12	8	17	87	1	1	21	32	36
48	0	0	12	10	12	88	1	0	17	24	36
49	1	1	9	10	9	89	1	0	4	13	18
50	2	0	10	18	14	90	1	0	16	21	38
51	3	0	9	11	14	91	0	0	5	13	20
52	2	0	11	14	13	92	1	0	6	11	25
53	3	3	15	17	13	93	....	1	3	15	16
54	2	2	19	10	19	94	....	....	2	10	12
55	2	0	21	16	15	95	....	....	0	4	9
56	1	0	21	16	16	96	....	....	4	10	10
57	3	1	17	31	11	97	....	....	2	6	9
58	2	1	22	22	12	98	....	....	1	5	9
59	4	2	16	15	11	99	....	....	....	2	3
60	3	2	32	25	20	100	and up wards		....	14*	35†

\* 6 at 100, 5 at 101, 1 at 102, 1 at 105, and 1 at 109.

† 13 at 100, 4 at 101, 3 at 102, 1 at 103, 3 at 104, 3 at 105, 1 at 106, 1 at 108, 2 at 109, 1 at 110, 1 at 111, 1 at 112, and 1 at 117.



The preceding table gives the numbers dying at each year from 21 inclusive, in the following classes:—the members of royal houses, male and female, the aristocracy, the gentry, and the females belonging to the two last-mentioned classes. The number of deaths recorded in the several classes is as follows:—royal houses, males 102, females 60; aristocracy 1239; gentry 1787; females 1907.

The following tables present the numbers and per centage proportions for periods of 5 and 10 years respectively.

TABLE VIII.

Age.	Number of Deaths.					Per Cent.				
	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.
	Males.	Females				Males.	Females			
21— 25	3	1	25	54	87	2.94	1.67	2.02	3.02	4.56
26— 30	2	2	35	51	63	1.96	3.33	2.83	2.85	3.30
31— 35	1	4	28	44	70	0.96	6.67	2.26	2.46	3.67
36— 40	3	3	37	39	76	2.94	5.00	3.00	2.18	3.99
41— 45	8	3	52	61	65	7.84	5.00	4.20	3.41	3.41
46— 50	5	2	57	49	68	4.90	3.33	4.60	2.74	3.56
51— 55	12	5	75	68	74	11.77	8.33	6.05	3.80	3.88
56— 60	13	6	108	109	70	12.75	10.00	8.71	6.10	3.67
61— 65	5	4	112	171	118	4.90	6.67	9.04	9.57	6.19
66— 70	13	10	140	215	172	12.75	16.67	11.30	12.03	9.02
71— 75	11	8	185	253	230	10.80	13.33	14.93	14.16	12.06
76— 80	15	7	146	247	244	14.71	11.67	11.78	13.82	12.80
81— 85	6	3	138	214	255	5.88	5.00	11.13	11.97	13.37
86— 90	4	1	78	122	167	3.92	1.67	6.30	6.82	8.76
91— 95	1	1	16	53	82	0.96	1.67	1.29	3.00	4.30
96—100	and upwards		7	37	66	....	....	0.56	2.07	3.46

TABLE IX.

Age.	Number of Deaths.					Per Cent.				
	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.
	Males.	Females				Males.	Females			
21— 30	5	3	60	105	150	4.90	5.00	4.85	5.87	7.86
31— 40	4	7	65	83	146	3.90	11.67	5.26	4.64	7.66
41— 50	13	5	109	110	133	12.74	8.33	8.80	6.15	6.97
51— 60	25	11	183	177	144	24.52	18.33	14.76	9.90	7.55
61— 70	18	14	252	386	290	17.65	23.34	20.34	21.60	15.21
71— 80	26	15	331	500	474	25.51	25.00	26.71	27.98	24.86
81— 90	10	4	216	336	422	9.80	6.67	17.43	18.79	22.13
91—100 and upwards	1	1	23	90	148	0.96	1.67	1.85	5.07	7.76

A very superficial examination of these tables will serve to show that the members of royal houses have a shorter duration of life than the aristocracy, the aristocracy than the gentry, and these latter a

shorter duration still than the females of the upper classes. It must also be evident by the higher per centage proportions of deaths occurring at early and late periods of life among females, that that class is characterized by the high mortality of its young adults on the one hand, and by the attainment, by a large proportion of the survivors, of a good old age, on the other. These conclusions are confirmed by the following table, which presents the average age attained by such of the several classes as reached the undermentioned ages. A column has also been added, shewing the average age attained by such of the Kings of England, (21 in number) since the Conquest, as died natural deaths.

TABLE X.

Age at Death.	Kings of England.	Royal Houses.		Aristocracy.	Gentry.	Females of the Upper Classes.	England, (Mr. Farr.)	
		Males.	Females				Males.	Females.
21 and upwards	....	62.11	61.18	65.31	67.59	67.18	68.60	69.80
26    ,,	....	63.31	61.81	66.19	68.97	69.31	69.68	70.88
31    ,,	59.19	64.06	63.00	67.31	70.22	70.79	70.80	71.98
41    ,,	60.45	65.25	66.74	69.13	72.03	74.00	73.12	74.20
51    ,,	64.12	68.54	69.11	71.69	74.00	76.56	75.64	76.58

This table strongly confirms the results drawn from the facts gleaned from the county histories. If the comparison be limited to males, it will be observed that, for all ages, the average duration of life increases from the highest class to the lowest; and the two columns of females present the same result. It will also appear that, though the duration of life among the females of the higher class is considerably longer than among males of the same class, the former are exposed in early adult life to dangers which may reduce the averages for the early periods even below the standard of the other sex.

The column for all England shows that the duration of life of the higher classes, both males and females, falls short of the average of the whole community: a result in accordance with the facts recently presented to the Society, by Mr. Neison.

Having thus given separately, the results deduced from the *County Histories* and the *Annual Register*, I proceed to compare them. This is done in the following table.

TABLE XI.

Age.	Aristocracy.		Gentry.		Females.	
	Peerage and Baronetage.	Annual Register.	County Histories.	Annual Register.	County Histories.	Annual Register.
21 and upwards	60.23	65.31	57.31	67.59	57.09	67.18
26    ,,	61.35	66.19	59.33	68.97	59.86	69.31
31    ,,	61.66	67.31	61.10	70.22	62.07	70.79
41    ,,	65.54	69.13	64.83	72.03	67.24	74.00
45    ,,	69.70	71.69	68.14	74.00	70.85	76.56



This table shows the great improvement which has taken place in the duration of life in recent times as compared with the average of the last six centuries. When, however, the average of the deaths recorded in the last century, in the pages of the *Annual Register*, is compared with the average of a period immediately preceding it, the increase in the value of life will appear to be much less considerable. Thus the average age at death of 812 members of the families of the peerage and baronetage, born during the first 45 years of the 18th century, and of whom a considerable proportion must have died before the end of that century, is 64·13, but the average age at death of 1239 males of the same class, dying from the year 1758 to the year 1843 inclusive, and of whom a large number must have been born during the latter end of the 18th century, is 65·31, being an increase of 1·18 years. This difference of little more than one year may be fairly presumed to be the advantage enjoyed by members of the aristocracy, born during the last half of the 18th century, over those born during the first half of the same century.

The results established in this paper differ from many averages recently obtained, inasmuch as they are not likely to be influenced by any material difference in the ages of the living members of the several classes which have been made the subjects of comparison. By limiting the record of deaths to adults, and comparing classes which may be presumed to be similarly circumstanced in regard to the ages of the living, it is believed that the results obtained are free from one of the most embarrassing fallacies belonging to vital statistics.

It may be useful to conclude these remarks by a brief summary of the chief propositions and probabilities established in this and the previous essay.

1. The duration of life among the higher classes has varied greatly at different periods. It was a minimum in persons born during the 14th century, and a maximum in those born during the 16th century; and it was nearly equal in those born during the 13th and first half of the 18th centuries. From the 16th century (the period of the maximum) it gradually fell till the latter half of the 17th century, since which period it has again increased, and is still probably improving. These propositions are based rather upon the coincidence of the several series of facts than on the number of the facts themselves, which during the early periods are not sufficiently numerous. (See Table VI.)

2. The duration of life among the upper classes varies with their rank, being lowest in the highest, and highest in the lowest rank. Beginning with the class which has the shortest average duration of life, the several classes will be found to stand in the following order.

1. Kings.

2. Members of Royal Houses, (males)\*.

\* This relative position of the members of Royal Families is confirmed by the approximate average age at death of the members of Ducal and Princely families, extracted by Dr. Casper, of Berlin, from the Almanack of Gotha. The following, in round numbers, are the average ages: 20 and upwards, 56; 25 and upwards, 57; 30 and upwards, 59; 40 and upwards, 63; 50 and upwards, 67. These numbers are higher than those obtained for English Kings, and lower than those obtained for

- 3. Members of Royal Houses, (females).
- 4. Peers, (successors to Title).
- 5. Male members of the families of the Peerage and Baronetage.
- 6. Do. Gentry.
- 7. Professional men, (chiefly Clergymen)\*.
- 8. Females of the Upper Classes.

3. The expectation of life among females of the upper classes is lower than that of males, when young adults are included, but higher when the comparison is restricted to more advanced ages.

4. The duration of life among the higher classes of both sexes falls short of that for the whole of England and Wales.

Though it has been the chief object of this paper to present the results of new inquiries, it must be interesting, and may be useful to compare the expectation of life among the higher orders with that which obtains in the other classes of society. The materials for such a comparison in regard to the lower orders were furnished in an extremely interesting and highly important essay recently presented to the Statistical Society by Mr. Neison, and subsequently published by him in a separate form.

The following table contrasts the expectation of life among the aristocracy and gentry respectively, with that of professional persons (chiefly clergymen), of agricultural labourers of England and Wales, and of the working classes in Liverpool. It is derived from the "Contributions to Vital Statistics," by F. G. P. NEISON, Esq.

TABLE XII.

Age.	Peerage and Baronetage.	Gentry.	Professions.	Agricultural Labourers' Friendly Societies. Mr. Neison.	England. (Males.) Mr. Neison.	Liverpool Friendly Societies (Mr. Neison).
20	38·5	37·3	....	47·9	40·7	37·9
30	30·9	31·2	33·9	40·6	34·1	30·1
40	24·4	24·9	26·0	32·8	27·5	23·1
50	17·9	18·4	18·9	25·1	20·8	17·1
60	12·6	12·8	12·8	17·8	14·6	12·0

If we compare the expectation of life for the aristocracy and gentry with that enjoyed by the other classes, we can scarcely fail to arrive at the conclusion that the possession of ample means of self-indulgence is unfavourable to longevity. Luxurious habits, an absence

the members of Royal Houses from the *Annual Register*. It is much lower than the average for the aristocracy. The approximate average, in order to admit of exact comparison, would require to be increased by a small fraction of a year. (See Table X.)

\* I may so far anticipate the promised inquiry into the duration of life among the members of the several professions, as to state that the facts gleaned from the *Annual Register* fully confirm those drawn from the county histories in regard to the relative position of the clergy. 1239 deaths among the aristocracy yield an average of 65·31 years, 1787 deaths of gentry an average of 67·59 years, while 950 clergy yield a mean of 68·75 years; a duration of life exceeding that of females, when young adults are included.



of the chief motives which stir other men to exertion, and the inevitable effect of idleness—dissipation—combine to impair the health and shorten the lives of these favoured children of fortune. When compared with professional persons, and especially with the clergy, of whom a large proportion belongs to the same class of society, but with habits of life naturally more strict, and means of self-indulgence more limited, the aristocracy and gentry will be found to have a shorter expectation of life. Even when compared with the labouring class of the most unhealthy city of England, they enjoy a very trifling advantage. But when we make the agricultural labourer our standard of comparison we are still more struck with the physical inferiority of the higher classes, and still more convinced of the advantages of that temperance and moderation which their lowly circumstances impose upon them, and of that daily toil which we are sometimes disposed to regard in the light of a hardship. Again, contrast the expectation of life among the higher classes with the expectation for England and Wales, and we must be still more strongly impressed with the same conviction. The favourable expectation of the entire male population, with a large number at the top of the social scale exposed to the evils of wealth, and a still larger class at the bottom of the scale immersed in poverty and surrounded with all its unhealthy accompaniments, leads inevitably to the conclusion that, in addition to the agricultural labourers, there must be a large class who enjoy a better expectation of life than either extreme, and whose longevity is such as not only to compensate the low duration of life of the two extreme classes, but to create, so to speak, a fund out of which that higher average duration may be supplied. It is but natural to look for the class in question among that part of the population residing either in the country, or in the smaller towns of England, which approaches nearest to the condition of the agricultural labourer, and which combines, in varying proportions, daily exercise in a pure atmosphere with prudent and temperate habits.

From what has now been stated, it is impossible to escape the conviction that temperance, mental occupation, and bodily exercise, are the three principal elements of health. When these are combined, whether from necessity or by choice, we have the condition most favourable to longevity, and, by inference, to health and enjoyment. Temperance, with constant bodily exercise, is the necessary condition of the ill-paid agricultural labourer; temperance, with constant mental occupation—a combination which may be presumed to exist in its highest perfection in the clergy—is the lot of the mass of professional persons. Both these classes are long-lived, but the agricultural labourer stands at the top of the sanitary scale, separated by a wide interval from every other class of the community.

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